URS

October 19, 2010

Duke Energy
Miami Fort Generating Station
11021 Brower Road
North Bend, OH 45052

Attention: Ms. Sue Wallace
Chemical Engineer

Re: Results – **October 2010**
Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

1. River Intake
2. Station 601 (WWT Influent)
   [Samples were collected at this station one detention time before samples collected at Outfall 608]
3. Outfall 608 (WWT Effluent)
   [Samples were collected at this outfall one detention time after samples collected at station 601]
4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: *Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels* (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, total metal mercury samples were collected from Station 601 and analyzed by Method 7470A. Also at the request of Duke Energy, a dissolved low-level mercury sample was collected by Method 1669 from Outfall 608 and analyzed by Method 1631. The collected dissolved sample was filtered at the laboratory utilizing 0.45 micron filtration.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample (duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.

URS Corporation
36 East 7th Street, Suite 2300
Cincinnati, OH 45202-4434
Tel: 513.651.3440
Fax: 513.651.3452

The results from the **October 4 and 5, 2010** sampling event are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

URS Corporation

Michael A. Wagner
Project Manager

Dennis P. Connair, C.P.G.
Principal

MAW/DPC/Duke Energy-MFS LL Hg 2010
Job No. 14948701

TABLE 1

ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)

DUKE ENERGY - MIAMI FORT STATION
NORTH BEND, OHIO

	Date Sampled / Results (ng/L, parts per trillion)						
Sample ID	**8/2/10**	**9/1/10**	**10/4/10**	**11/xx/2010**	**12/xx/2010**	**1/xx/2011**	**2/xx/2011**
River Intake	1.9	0.86	1.1				
Station 601 (7)	48,200	391,000	187,000				
Station 601 (7)*	14,000	8,600	23,200				
Station 601 (7)* [duplicate]	13,000	Not Collected	Not Collected				
Station 601 (8)	NSC	428,000	285,000				
Station 601 (8)*	NSC	8,300	30,600				
Station 601 (8)*[duplicate]	NSC	Not Collected	28,400				
Outfall 608	420	631	440				
Outfall 608 [duplicate]	364	650	449				
Outfall 608 [dissolved, 0.45 micron]	Not Collected	83	70				
APB-002	1.8	2.3	3.1				
APB-002 [duplicate]	1.3	1.9	2.8				
Field Blank (RI-FB)	<0.50	<0.50	<0.50				
Field Blank (WWT-FB)	<0.50	<0.50	<0.50				
Field Blank (AP-FB)	<0.50	<0.50	<0.50				
Trip Blank	<0.50	<0.50	<0.50				

Samples collected by URS
Samples analyzed by TestAmerica of North Canton, Ohio
NSC - No Sample Collected (Unit's wastewater was not being processed at the time of sample collection)
* = Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]
B = Low-level mercury detected in associated field blank collected at sampling location

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 14948701

MF LLHG

Lot #: A0J060439

Sue Wallace

Duke Energy Corporation
PO Box 5385
Cincinnati, OH 45201

TESTAMERICA LABORATORIES, INC.

Approved for release.
Kenneth J. Kuzior
Project Manager
10/18/2010 3:51 PM

Kenneth J. Kuzior
Project Manager
ken.kuzior@testamericainc.com

October 18, 2010

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A0J060439

The following report contains the analytical results for fourteen water samples and one quality control sample submitted to TestAmerica North Canton by Cinergy from the MF LLHG Site, project number 14948701. The samples were received October 06, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Candance Bonham, Mike Wagner, and Sue Wallace on October 13, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Kenneth J. Kuzior, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 15.9°C.

See TestAmerica's Cooler Receipt Form for additional information.

METALS

The matrix spike/matrix spike duplicate(s) for batch(es) 0280256 and 0280015 had RPD's and recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0J060439

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
WWT 601 (8) 10/04/10 17:50 001				
Mercury	285000	10000	ng/L	CFR136A 1631E
WWT 601 (8) TOT 10/04/10 17:55 002				
Mercury	30.6	1.0	ug/L	SW846 7470A
WWT 601 (8) TOT DUP 10/04/10 18:00 003				
Mercury	28.4	1.0	ug/L	SW846 7470A
WWT 601 (7) 10/04/10 18:10 004				
Mercury	187000	10000	ng/L	CFR136A 1631E
WWT 601 (7) TOT 10/04/10 18:15 005				
Mercury	23.2	1.0	ug/L	SW846 7470A
RI 10/04/10 18:45 007				
Mercury	1.1	0.50	ng/L	CFR136A 1631E
WWT 608 10/05/10 08:10 009				
Mercury	440	20.0	ng/L	CFR136A 1631E
WWT 608 DUP 10/05/10 08:15 010				
Mercury	449	20.0	ng/L	CFR136A 1631E
WWT 608 DISS 10/05/10 08:20 011				
Mercury - DISSOLVED	70.0	5.0	ng/L	CFR136A 1631E
OUTFALL 002 10/05/10 08:45 013				
Mercury	3.1	0.50	ng/L	CFR136A 1631E
OUTFALL 002 DUP 10/05/10 08:50 014				
Mercury	2.8	0.50	ng/L	CFR136A 1631E

ANALYTICAL METHODS SUMMARY

A0J060439

PARAMETER	ANALYTICAL METHOD
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Mercury, Low Level Mercury, CVA Fluorescence	CFR136A 1631E

References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0J060439

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L72RF	001	WWT 601 (8)	10/04/10	17:50
L72RJ	002	WWT 601 (8) TOT	10/04/10	17:55
L72RL	003	WWT 601 (8) TOT DUP	10/04/10	18:00
L72RQ	004	WWT 601 (7)	10/04/10	18:10
L72RR	005	WWT 601 (7) TOT	10/04/10	18:15
L72RT	006	RI FB	10/04/10	18:40
L72RW	007	RI	10/04/10	18:45
L72R0	008	WWT 608 FB	10/05/10	08:05
L72R1	009	WWT 608	10/05/10	08:10
L72R2	010	WWT 608 DUP	10/05/10	08:15
L72R4	011	WWT 608 DISS	10/05/10	08:20
L72TJ	012	OUTFALL 002 FB	10/05/10	08:40
L72TL	013	OUTFALL 002	10/05/10	08:45
L72TM	014	OUTFALL 002 DUP	10/05/10	08:50
L72TN	015	TRIP BLANK	10/05/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Duke Energy Corporation

Client Sample ID: WWT 601 (8)

TOTAL Metals

Lot-Sample #...: A0J060439-001 **Matrix.....:** WG
Date Sampled...: 10/04/10 17:50 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	**285000**	**10000**	**ng/L**	**CFR136A 1631E**	**10/07-10/08/10**	**L72RF1AA**
		Dilution Factor: 20000				

Duke Energy Corporation

Client Sample ID: WWT 601 (8) TOT

TOTAL Metals

Lot-Sample #...: A0J060439-002 **Matrix.....:** WG
Date Sampled...: 10/04/10 17:55 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280015						
Mercury	**30.6**	**1.0**	**ug/L**	**SW846 7470A**	**10/07-10/13/10**	**L72RJ1AA**
		Dilution Factor: 5				

Duke Energy Corporation

Client Sample ID: WWT 601 (8) TOT DUP

TOTAL Metals

Lot-Sample #...: A0J060439-003 **Matrix.....:** WG
Date Sampled...: 10/04/10 18:00 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280015						
Mercury	**28.4**	**1.0**	**ug/L**	**SW846 7470A**	**10/07-10/13/10**	**L72RL1AA**
		Dilution Factor: 5				

Duke Energy Corporation

Client Sample ID: WWT 601 (7)

TOTAL Metals

Lot-Sample #...: A0J060439-004 **Matrix.....:** WG
Date Sampled...: 10/04/10 18:10 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	**187000**	**10000**	**ng/L**	**CFR136A 1631E**	**10/07-10/08/10**	**L72RQ1AA**
		Dilution Factor: 20000				

Duke Energy Corporation

Client Sample ID: WWT 601 (7) TOT

TOTAL Metals

Lot-Sample #...: A0J060439-005 **Matrix.....:** WG
Date Sampled...: 10/04/10 18:15 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280015						
Mercury	**23.2**	**1.0**	**ug/L**	**SW846 7470A**	**10/07-10/13/10**	**L72RR1AA**
		Dilution Factor: 5				

Duke Energy Corporation

Client Sample ID: RI FB

TOTAL Metals

Lot-Sample #...: A0J060439-006 **Matrix.....:** WQ
Date Sampled...: 10/04/10 18:40 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	ND	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L72RT1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: RI

TOTAL Metals

Lot-Sample #...: A0J060439-007 **Matrix.....:** WG
Date Sampled...: 10/04/10 18:45 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	**1.1**	**0.50**	**ng/L**	**CFR136A 1631E**	**10/07-10/08/10**	**L72RW1AA**
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: WWT 608 FB

TOTAL Metals

Lot-Sample #...: A0J060439-008 **Matrix.....:** WQ
Date Sampled...: 10/05/10 08:05 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	ND	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L72R01AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: WWT 608

TOTAL Metals

Lot-Sample #...: A0J060439-009 **Matrix.....:** WG
Date Sampled...: 10/05/10 08:10 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	**440**	**20.0**	**ng/L**	**CFR136A 1631E**	**10/07-10/08/10**	**L72R11AA**
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: WWT 608 DUP

TOTAL Metals

Lot-Sample #...: A0J060439-010 **Matrix.....:** WG
Date Sampled...: 10/05/10 08:15 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	**449**	**20.0**	**ng/L**	**CFR136A 1631E**	**10/07-10/08/10**	**L72R21AA**
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: WWT 608 DISS

DISSOLVED Metals

Lot-Sample #...: A0J060439-011 **Matrix.....:** WG
Date Sampled...: 10/05/10 08:20 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	**70.0**	**5.0**	**ng/L**	**CFR136A 1631E**	**10/07-10/08/10**	**L72R41AA**
		Dilution Factor: 10				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 FB

TOTAL Metals

Lot-Sample #...: A0J060439-012 **Matrix.....:** WQ
Date Sampled...: 10/05/10 08:40 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	ND	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L72TJ1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002

TOTAL Metals

Lot-Sample #...: A0J060439-013 **Matrix.....:** WG
Date Sampled...: 10/05/10 08:45 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	3.1	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L72TL1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 DUP

TOTAL Metals

Lot-Sample #...: A0J060439-014 **Matrix.....:** WG
Date Sampled...: 10/05/10 08:50 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	2.8	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L72TM1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: TRIP BLANK

TOTAL Metals

Lot-Sample #...: A0J060439-015 **Matrix.....:** WQ
Date Sampled...: 10/05/10 **Date Received..:** 10/06/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0280256						
Mercury	ND	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L72TN1AA
		Dilution Factor: 1				

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0J060439 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0J070000-015 **Prep Batch #...:** 0280015						
Mercury	ND	0.20	ug/L	SW846 7470A	10/07-10/13/10	L731C1AA
		Dilution Factor: 1				
MB Lot-Sample #: A0J070000-256 **Prep Batch #...:** 0280256						
Mercury	ND	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L74R11AA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: A0J060439 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0J070000-256 **Prep Batch #...:** 0280256						
Mercury	ND	0.50	ng/L	CFR136A 1631E	10/07-10/08/10	L74R11AD
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J060439 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0J070000-015 **Prep Batch #...:** 0280015					
Mercury	102	(81 - 123)	SW846 7470A	10/07-10/13/10	L731C1A4
		Dilution Factor: 1			
LCS Lot-Sample#: A0J070000-256 **Prep Batch #...:** 0280256					
Mercury	93	(77 - 125)	CFR136A 1631E	10/07-10/08/10	L74R11AC
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A0J060439 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0J070000-256 **Prep Batch #...:** 0280256					
Mercury	93	(77 - 125)	CFR136A 1631E	10/07-10/08/10	L74R11AE
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J060439 **Matrix.....:** WATER
Date Sampled...: 10/05/10 12:55 **Date Received..:** 10/06/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J060440-001 **Prep Batch #...:** 0280015							
Mercury	85	(69 - 134)			SW846 7470A	10/07-10/13/10	L72RV1CA
	62 N,*	(69 - 134)	32	(0-20)	SW846 7470A	10/07-10/13/10	L72RV1CC
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J060439 **Matrix.....:** WATER
Date Sampled...: 09/27/10 14:30 **Date Received..:** 09/30/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0I300574-002 **Prep Batch #...:** 0280256							
Mercury	127 N	(71 - 125)			CFR136A 1631E	10/07-10/08/10	L7RP61AD
	108	(71 - 125)	10	(0-24)	CFR136A 1631E	10/07-10/08/10	L7RP61AE
		Dilution Factor: 5					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J060439 **Matrix.....:** WG
Date Sampled...: 10/05/10 08:45 **Date Received..:** 10/06/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J060439-013 **Prep Batch #...:** 0280256							
Mercury	116	(71 - 125)			CFR136A 1631E	10/07-10/08/10	L72TL1AC
	116	(71 - 125)	0.22	(0-24)	CFR136A 1631E	10/07-10/08/10	L72TL1AD
		Dilution Factor: 5					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: N. Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: Duke Energy
Address: MF Station
City/State/Zip: N. Bend, OH
Phone: 513 467 4900
Project Name: LL Hg
Project Number: 14948701
PO#:

Client Project Manager: M. Wagner
Telephone: 513 651 3440
Email: Mike-wagner@urscorp.com
Method of Shipment/Carrier:
Shipping/Tracking No:

Site Contact: T. Thomas
Telephone: 513 467 4950

Analysis Turnaround Time (in BUS days)
TAT if different from below: STANDARD
☐ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Lab Contact:
Telephone:

COC No: 1 of 2 COCs

Analyses: LL Hg ~~[illegible]~~ / Total Hg / Diss. ~~[illegible]~~ Hg

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other	Filtered Sample (Y/N)	Composite=C / Grab=G	LL Hg	Total Hg	Diss. Hg	Sample Specific Notes / Special Instructions
WWT 601 (8)	10-4-10	1750		4									X		N	G	X			*
WWT 601 (8) TOT		1755		1					✓									X		*
WWT 601 (8) TOT DUP		1800		1					✓									✓		*
WWT 601 (7)		1810		4									X				X			*
WWT 601 (7) TOT		1815		1					✓									X		*
RI FB		1840		2									X				X			
RI		1845		4									X				X			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:
* POTENTIALLY ELEVATED Hg LEVELS

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[illegible]	URS Corp	10/5/10 1255	[illegible]	TestAmerica	10/5/10 1255
Matt [illegible]	TestAmerica	10/5/10 1340			
			Received in Laboratory by: [illegible]	TESTAMERICA	6 OCT 2010 0815

TAL-0018 (1008)

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: N. Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: Duke Energy	M-Wagner	T. Thomas		
Address: Miami Fort Station	Telephone: 513 651 3440	Telephone: 513 467 4950	Telephone:	2 of 2 COCs
City/State/Zip: N. Bend, OH	Email: mike-wagner@urscorp.com	Analysis Turnaround Time: CALENDAR DAYS or WORKING DAYS	Analyses	
Phone: 513 467 4900		TAT if different from below: Standard		
Project Name: MF LL Hg	Method of Shipment/Carrier:	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Number: 14948701	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (Y/N)	LL Hg	Diss Hg	Sample Specific Notes / Special Instructions:
WWT 608 FB	10-5-10	0805		2									X		N	G	X		
WWT 608		0810		4									X				X		
WWT 608 Dup		0815		4									X				X		
WWT 608 DISS		0820		4									V					X	
OUTFALL 002 FB		0840		2									X				X		
OUTFALL 002		0845		4									X				X		
OUTFALL 002 DUP		0850		4									X		V	V	X		
TRIP BLANK	—			2									X		—		X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	URS	10/5/10 1255	[signature]	TestAmerica	10/5/10 1255
[signature]	TestAmerica	10/5/10 1340	[signature]		
			Received in Laboratory by: [signature]	TESTAMERICA	10/6/10 0815

TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A0J0600439
North Canton Facility

Client DUKE ENERGY Project LLHG By: (Signature)
Cooler Received on 6 OCT 2010 Opened on 6 OCT 2010
FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other
TestAmerica Cooler # 5074 Multiple Coolers [ ] Foam Box [ ] Client Cooler [ ] Other

1. Were custody seals on the outside of the cooler(s)? Yes [X] No [ ] Intact? Yes [X] No [ ] NA [ ]
   If YES, Quantity 1 Quantity Unsalvageable
   Were custody seals on the outside of cooler(s) signed and dated? Yes [X] No [ ] NA [ ]
   Were custody seals on the bottle(s)? Yes [ ] No [X]
   If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [X] None [ ] Other PLASTIC BAG
6. Cooler temperature upon receipt 1.5 °C See back of form for multiple coolers/temps [ ]
   METHOD: IR [X] Other [ ]
   COOLANT: Wet Ice [ ] Blue Ice [ ] Dry Ice [ ] Water [ ] None [X]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [ ] No [X] NA [ ]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [ ] NA [X]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [ ] No [X]

Contacted PM _____ Date _____ by _____ via Verbal [ ] Voice Mail [ ] Other [ ]
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:
HT611 TEMP OKAY METALS = LLHG.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) 1X250ml THg 601(8)TOT, 601(8)TOT DUP AND 601(7)TOT were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 051010-HNO_3; Sulfuric Acid Lot# 051010-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN$/NaOH.* What time was preserved added to sample(s)? 1144, 1144, 1144

Client ID	pH	Date	Initials
601(8)TOT	12	6 OCT 2010	JMF
601(8)TOT DUP	12		
601(7)TOT	12		

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

END OF REPORT